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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,231	04/03/2001	Kazumitsu Kushida	0505-0810P	9119

2292 7590 04-04-2003

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EXAMINER

HARRINGTON, ALICIA M

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 04/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/824,231

Applicant(s)

KUSHIDA ET AL.

Examiner

Alicia M Harrington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1,2,4-13 and 15-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,2,4-13 and 15-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Rasaat (EP 0338703).

Regarding claim 1, Rasaat discloses a display for a motorcycle which provides velocity (col. 2, lines 40-50 and vol. 5, lines 40-45) information to the driver that is projected on the screen of the motorcycle in front of a riding position of the driver, where the visual field of the driver is divided into a central field and peripheral field on the screen and the image is located in the peripheral field (see col. 3, lines 30-52). The image is a linear pattern (see figure 5) extending the peripheral field of view. *Further Webster defines stripe as a line or long narrow section differing in color or texture. Webster defines linear as composed of simply drawn lines with little attempt at pictorial presentation. Applicant illustration of the image is a group of circles in a linear patter. Thus the drawing figure 5 of Rasaat is defined by Webster to be a stripe or linear pattern. And, Rassat includes an exclamation point/warning element (110) as part of the linear pattern.*

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Regarding claim 2, Rasaat discloses the image is above the central field (col. 3, lines 47-52).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasaat, as applied above in claim 1, in view of Hennessy et al (US 6,014,117).

Regarding claim 4, Rasaat discloses the image is 15 degrees from the center point. However, Rasaat fails to specifically disclose the width of the image the horizontal direction is determined the angle formed between two lines extending from a point in the central field to both ends of the image is at least 20 degrees. However, Hennessy teaches that display system with convey vehicle guidance information is generally displayed within 30 degrees of vision of the central field of view of the user (col. 1, lines 60-67 and col. 3, lines 38-50). And Hennessy further illustrates an embodiment where information can be displayed in peripheral field of view. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat, such that the angle of the two lines extending from a point in the central region be at least 20 to prevent eye strain.

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Regarding claim 5, Rasaat discloses the image is 15 degrees from the center point. However, Rasaat fails to specifically disclose the width of the image the horizontal direction is determined the angle formed between two lines extending from an uppermost and lowermost point in the central field to both ends of the image is at least greater than 20 degrees. However, Hennessy teaches that display system with convey vehicle guidance information is generally displayed within 30 degrees of vision of the central field of view of the user (col. 1, lines 60-67 and col. 3, lines 38-50). And Hennessy further illustrates an embodiment where information can be displayed in peripheral field of view at angle of greater than 20 degrees. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat, such that the angle of the two lines extending from a point in the central region be at least 20 to prevent eye strain, and reduce the cognitive and visual demands of the user.

Regarding claim 20, Rasaat discloses a motorcycle with a central and a peripheral field where the image is displayed. Hennessy further illustrates an embodiment where information can be displayed in peripheral field of view at angle of greater than 20 degrees. And the Examiner takes official notice that displaying image information in the peripheral regions around the central region is notoriously well known to head display equipment. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat and Hennessy to provide information in the bottom peripheral portion of the screen since displaying information in the bottom peripheral region is well known in the art.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasaat, as applied above in claim 1, in view of Lu (US 4,998,976)

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Regarding claim 6, Rasaat has an electronic display for providing information to the user. However, Rasaat fails to specifically disclose the display is a projection display. Although, it is well known in the art, as taught by Lu. In the same field of endeavor, Lu discloses a display unit for motorcycles where a projection display (see figure 9 and 10) is incorporated to project an image on the windshield or helmet of user. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat, as taught by Lu, to provide a projection display device to provide information in the viewer line of sight.

Regarding claim 7, as discussed above in claim 6, Rasaat has an electronic display for providing information to the user. However, Rasaat fails to specifically disclose the display is a projection display comprises a plurality of light sources. Lu discloses using vacuum fluorescent display as the projection display apparatus. And the Examiner takes official notice that a projector comprising a plurality of light sources is notoriously well known in the art of projection systems. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a projector as claimed, to provide a clear and bright image.

Regarding claim 8, as discussed above in claim 6, Rasaat has an electronic display for providing information to the user. However, Rasaat fails to specifically disclose the display is a projection display comprises a plurality of light sources and other claimed features. Although, Lu disclose using vacuum fluorescent display as the projection display apparatus where the projector is on a substrate in case with a lens for covering a portion of the case (see figure 10 and col. 15-35). And the Examiner takes official notice that a projector comprising a plurality of light sources is notoriously well known in the art of projection systems. Thus, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to provide a projector as claimed, to provide a clear and bright image.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rasaat in view of Lu (US 4,998,976), as applied above in claim 8, further in view of Hennessy et al (US 6,014,117).

Regarding claim 9, as discussed above, Rasaat and Lu disclose a motorcycle with projection system. , Rasaat further discloses the image is 15 degrees from the center point. However, Rasaat and Lu fail to specifically disclose the width of the image the horizontal direction is determined the angle formed between two lines extending from an uppermost and lowermost point in the central field to both ends of the image is at least greater than 20 degrees. Although, Hennessy teaches that a display system that conveys vehicle guidance information is generally displayed within 30 degrees of vision of the central field of view of the user (col. 1, lines 60-67 and col. 3, lines 38-50). And Hennessy further illustrates an embodiment where information can be displayed in peripheral field of view at angle of greater than 20 degrees. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat, such that the angle of the two lines extending from a point in the central region be at least 20 to prevent eye strain, and reduce the cognitive and visual demands of the user.

Claims 10-13,21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasaat in view of Lu (US 4,998,976)

Regarding claim 10, Rasaat discloses a display for a motorcycle which provides velocity (col. 2, lines 40-50 and vol. 5, lines 40-45) information to the driver that is projected on the

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screen of the motorcycle in front of a riding position of the driver, where the visual field of the driver is divided into a central field and peripheral field on the screen and the image is located in the peripheral field (see col. 3, lines 30-52). Rasaat has an electronic display for providing information to the user. The image is a linear pattern (see figure 5) extending the peripheral field of view. *Further Webster defines stripe as a line or long narrow section differing in color or texture. Webster defines linear as composed of simply drawn lines with little attempt at pictorial presentation. Applicant illustration of the image is a group of circles in a linear patter. Thus the drawing figure 5 of Rasaat is defined by Webster to be a stripe or linear pattern. And Rassat includes an exclamation point warning element (110) as part of the linear pattern.*

However, Rasaat fails to specifically disclose the display is a projection display. Although, it is well known in the art, as taught by Lu. In the same field of endeavor, Lu discloses a display unit for motorcycles where a projection display (see figure 9 and 10) is incorporated to project an image on the windshield or helmet of user. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat, as taught by Lu, to provide a projection display device to provide information in the viewer line of sight.

Further, Rasaat discloses the display information is above the central position. And the information is fifteen degrees from the center point. However, Rasaat fails to specifically disclose the view is approximately six degrees in the vertical direction as defined by 90 percent of all drivers riding posture on the motorcycle. Since Rasaat and Lu disclose the claimed invention except for field of view defined as six degrees in the vertical direction, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide this feature, since it has been held that where the general conditions of a claim are disclosed in the



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prior art, discovering the optimum or workable range involves only routine skill in the art. In re aller, 105 USPQ 233.

Regarding claim 11, as discussed above in claim 10, Rasaat has an electronic display for providing information to the user. However, Rasaat fails to specifically disclose the display is a projection display comprises a plurality of light sources. Lu discloses using vacuum fluorescent display as the projection display apparatus. And the Examiner takes official notice that a projector comprising a plurality of light sources is notoriously well known in the art of projection systems. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a projector as claimed, to provide a clear and bright image.

Regarding claim 12, as discussed above in claim 10, Rasaat has an electronic display for providing information to the user. However, Rasaat fails to specifically disclose the display is a projection display comprises a plurality of light sources and other claimed features. Although, Lu disclose using vacuum fluorescent display as the projection display apparatus where the projector is on a substrate in case with a lens for covering a portion of the case (see figure 10 and col. 15-35). And the Examiner takes official notice that a projector comprising a plurality of light sources is notoriously well known in the art of projection systems. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a projector as claimed, to provide a clear and bright image.

Regarding claim 13, Rasaat discloses the image is above the central field (col. 3, lines 47-52).

Regarding claim 21, Rasaat and Lu disclose a motorcycle with a central and a peripheral field where the image is displayed. And the Examiner takes official notice that displaying image

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information in the peripheral regions around the central region is notoriously well known to head display equipment. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat to provide information in the bottom peripheral portion of the screen since displaying information in the bottom peripheral region is well known in the art.

Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasaat in view of Lu, as applied above in claim 10, further in view of Hennessy et al (US 6,014,117).

Regarding claim 15, Rasaat discloses the image is 15 degrees from the center point. However, Rasaat and Lu fail to specifically disclose the width of the image the horizontal direction is determined the angle formed between two lines extended from a point in the central field to both ends of the image is at least 20 degrees. However, Hennessy teaches that display system with convey vehicle guidance information is generally displayed within 30 degrees of vision of the central field of view of the user (col. 1, lines 60-67 and col. 3, lines 38-50). And Hennessy further illustrates an embodiment where information can be displayed in peripheral field of view. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat and Lu, such that the angle of the two lines extending from a point in the central region be at least 20 to prevent eye strain.

Regarding claim 16, Rasaat discloses the image is 15 degrees from the center point. However, Rasaat and Lu fails to specifically disclose the width of the image the horizontal direction is determined the angle formed between two lines extending from an uppermost and

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lowermost point in the central field to both ends of the image is at least greater than 20 degrees.

However, Hennessy teaches that display system with convey vehicle guidance information is generally displayed within 30 degrees of vision of the central field of view of the user (col. 1, lines 60-67 and col. 3, lines 38-50). And Hennessy further illustrates an embodiment where information can be displayed in peripheral field of view at angle of greater than 20 degrees.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat, such that the angle of the two lines extending from a point in the central region be at least 20 to prevent eye strain, and reduce the cognitive and visual demands of the user.

Regarding claim 17-18, as discussed above in claim 16, Rasaat has an electronic display for providing information to the user. However, Rasaat fails to specifically disclose the display is a projection display comprises a plurality of light sources and other claimed features. Although, Lu disclose using vacuum fluorescent display as the projection display apparatus where the projector is on a substrate in case with a lens for covering a portion of the case (see figure 10 and col. 15-35). And the Examiner takes official notice that a projector comprising a plurality of light sources is notoriously well known in the art of projection systems. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a projector as claimed, to provide a clear and bright image.

Regarding claim 19, Rasaat discloses the image is above the central field (col. 3, lines 47-52; figure 5).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rasaat in view of Pollard (US 5,243,417).

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Regarding claim 22, Rasaat discloses displaying the motor RPM and velocity of the motorcycle, as well as a warning exclamation point. Rasaat fails to specifically disclose an embodiment where the traffic information indicated an approaching vehicle, traffic signal or guardrails. Although, it is well known in the art, as taught by Pollard.

In the same field of endeavor, Pollard discloses a motorcycle where a computing device detects a speed of a vehicle approaching from behind (col. 2, lines 50-65). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rasaat, as taught Pollard, to further increase the safety of the rider by displaying approaching vehicle information which is important information when the biker would like to change lanes.

Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollard (US 5,243,417).

Regarding claim 23, Pollard discloses a heads up display for a motorcycle comprising a receiver for computing the velocity and direction (traffic information) of a vehicle approaching from behind (see col. 2, lines 50-63) where a HUD system (col. 3, lines 5-10) projects an image produced by the receiver onto a wind screen. Pollard's computer device inherently includes code for processing image data and determining speed (controller). Although, Pollard discloses the receiver and controller as integrated pieces, it would have been obvious to one of ordinary skill in the art at the time the invention was made to produce separate controls and receivers, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179. However, Pollard fails to specifically disclose the receiver is receiving information from a transmitter of the approaching car or device fixed along a roadway. Although, the Examiner takes official notice that is

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notoriously well known in the art for receiver of one vehicle to receiver information from a transmitter of another vehicle or roadway transmitter (smart cars). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Pollard, to allow traffic information to be transmitted from a transmitter of another vehicle, as aid in prevent collisions, thus, improving road safety for motorcycle driver who have a greater risk of being seriously injured when involved in an accident.

Regarding claim 24, Pollard discloses the image displayed can be of the approaching car. Pollard also provides for additional visual or audio devices to warn the biker of an approaching vehicle (see col. 2, lines 55-63).

Regarding claim 25, Pollard discloses the image of the approaching vehicle can be reversed to provide logical orientation of the approaching vehicle. Thus, Pollard system provides for image processing/programming. However, Pollard fails to specifically disclose an embodiment where the image is a horizontal row of circular images. Although, the Examiner takes official notice that it is notoriously well known for information display systems of vehicles to display various graphical features, for example numbers and exclamation points. Thus, it would have been obvious to select any of the these known equivalents for their use in providing traffic information as such would be within the level of ordinary skill in the art.

Regarding claim 26, Pollard discloses the display is mounted to the vehicle. However, the Examiner takes official notice that it is notoriously well known in the art that a display system for vehicle operator can be a head mounted display system to display traffic information in visual and/or audio form. And since Pollard suggest audio warning (col. 2, lines 58-62) system can be added to an embodiment of his display system, it would have been obvious to one of ordinary

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skill in the art at the time the invention was made to modify Pollard to provide for a helmet mounted display system since it would provide the equivalent function of providing traffic information to the biker while not also causing the riders head to turn to view approaching traffic.

### ***Response to Arguments***

Applicant again argues that Rasaat fails to disclose a stripe or linear pattern. However, the Examiner must respectfully disagree. *Webster defines stripe as a line or long narrow section differing in color or texture. Webster defines linear as composed of simply drawn lines with little attempt at pictorial presentation. Applicant illustration of the image is a group of circles in a linear patter. Thus the drawing figure 5 of Rasaat is defined by Webster to be a stripe or linear pattern. Further, Rassat includes an exclamation point warning element (110) as part of the linear pattern. Thus, applicant's argument is not persuasive and the rejection of claims 1-13, 15-21 will be repeated.*

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M Harrington whose telephone number is 703 308 9295. The examiner can normally be reached on Monday - Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 703 308 4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7724 for regular communications and 703 308 7724 for After Final communications.

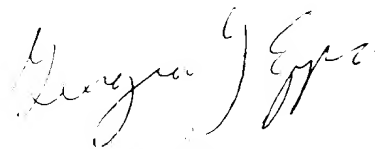
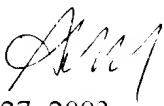
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

Alicia M Harrington  
Examiner  
Art Unit 2873

AMH

March 27, 2003



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